

EXHIBIT #12



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re U.S. Patent Application of:

SERIAL NO. : 10/770,868
 APPLICANT(S) : Inkinen et al.
 FILING DATE : February 3, 2004
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 EXAMINER : Barqadle, Yasin M.

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TITLE : CONTENT DELIVERY ACCORDING TO DEVICE ACTIVITY

Mail Stop Appeal Brief – Patents
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

APPELLANT'S APPEAL BRIEF

Sir:

Commensurate with the Notice of Appeal filed on May 11, 2009, and a Notice of Panel Decision from Pre-Appeal Brief Review mailed on August 11, 2009, Applicant/Appellant hereby submits this Appeal Brief to the Board of Patent Appeals and Interferences (hereinafter, the Board) under 37 C.F.R. §41.31 and §41.37. It is requested that deposit account no. 50-1924 be charged for the \$540 appeal brief fee set forth in 37 C.F.R. §41.20(b)(2). This Appeal Brief is filed within one month from the mailing date of the above-cited Notice of Panel Decision from Pre-Appeal Brief Review and the undersigned representative believes that no late fee is due. However, should the undersigned agent be mistaken, please consider this a petition for any extension of time under 37 C.F.R. §1.136(a) or (b) that may be required to avoid dismissal of this appeal, and charge Deposit Account No. 50-1924 for any required fee deficiency.

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I. REAL PARTY IN INTEREST

The real party in interest (RPI) is Nokia Corporation.

II. RELATED APPEALS AND INTERFERENCES

The undersigned representative and assignee/RPI are not aware of any directly related appeals or interferences regarding this application.

III. STATUS OF CLAIMS

Claims 1, 8-10, 16, 18, 19 and 24-36 are pending in this application. Claims 2-7, 11-14, 17 and 20-23 were previously canceled without prejudice or disclaimer. Claims 1, 8-10, 16, 18, 19 and 24-36 stand finally rejected by a Final Office Action dated March 6, 2009. These claims are pending in this appeal, and are reproduced in an Appendix accompanying this Appeal Brief (see Section VIII).

IV. STATUS OF AMENDMENTS

No amendment to the claims was proposed subsequent to the final rejection of the claims in the Final Office Action dated March 6, 2009.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Claims 1, 8-10, 16, 18, 19 and 24-36 are pending. Of the pending claims, claims 15, 24, 27 and 36 are independent claims. None of the pending claims, independent or dependent, include a means plus function or step plus function element. The below references to the specification and drawings of the instant application are provided as non-limiting examples that assist in explaining the claimed subject matter.

Claim 15 claims a device (20, FIG. 1; 40, FIG. 2). The device includes: a user interface (25, FIG.

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1; 64, FIG. 4; p. 11, lines 29-30), one or more components (21, 22, FIG. 1) and a content transfer controller (21, FIG. 1). The user interface is configured to allow a user to select an item of content (p. 11, lines 29-30). The content transfer controller is configured to determine an acceptable activity period (p. 15, lines 26-29) by monitoring usage of the one or more components (p. 16, lines 14-17) over a particular time duration (p. 3, lines 12-14). The content transfer controller is configured to determine that an acceptable activity period is present when the usage of the one or more components is determined to have been below a particular threshold level (p. 16, lines 17-21) over the particular time duration (p. 3, lines 12-19). The content transfer controller is arranged: to initiate transfer of the selected item of content from a content provider device according to the determination of an acceptable activity period (p. 2, lines 16-19; p. 13, lines 6-9), to receive the selected item of content, and to store the received item of content on memory (p. 1, lines 26-28; 24, FIG. 1, p. 10, lines 7-8; 45, FIG. 2).

Claim 24 claims a method (p. 1, line 4; p. 9, lines 4-10). The method includes: allowing a user to select an item of content via a user interface (p. 11, lines 29-30); determining an acceptable level of device activity by a content transfer controller by monitoring usage of one or more components of a content receptor device over a particular time duration (p. 15, lines 26-29; p. 16, lines 14-17; p. 3, lines 12-14) and by determining that an acceptable activity period has occurred when component usage is determined to have been below a particular threshold level over the particular time duration (p. 16, lines 17-21; p. 3, lines 12-19); in response to determining an acceptable level of device activity, initiating transfer of the selected item of content (p. 2, lines 16-19; p. 13, lines 6-9); receiving the selected item of content at the content receptor device; and storing the received item of content on a memory of the content receptor device (p. 1, lines 26-28; 24, FIG. 1, p. 10, lines 7-8; 45, FIG. 2).

Claim 27 claims a device (20, FIG. 1; 40, FIG. 2). The device includes: a user interface (25, FIG. 1; 64, FIG. 4; p. 11, lines 29-30), a second device (original claim 6 at p. 26) and a content transfer controller (21, FIG. 1). The user interface is configured to allow a user to select an item of content (p. 11, lines 29-30). The content transfer controller is configured to determine device activity (p. 15, lines 26-29) by analyzing activity of the second device over a time duration (p. 16,

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lines 29-31) and to predict therefrom acceptable device activity levels for subsequent time durations (p. 16, line 31-p. 17, line 4). The content transfer controller is arranged to initiate transfer of the selected item of content from a content provider device at a predicted time of acceptable device activity level (p. 16, line 31-p. 17, line 4; p. 17, line 20-p. 18, line 3). The device is operable to receive the selected item of content and to store the received item of content on memory (p. 1, lines 26-28; 24, FIG. 1, p. 10, lines 7-8; 45, FIG. 2).

Claim 36 claims a method (p. 1, line 4; p. 9, lines 4-10). The method includes: allowing a user to select an item of content via a user interface (p. 11, lines 29-30); determining an acceptable level of device activity (p. 15, lines 26-29) by a content transfer controller by analyzing activity of a content receptor device over a time duration (p. 16, lines 29-31) and predicting therefrom acceptable device activity levels for subsequent time durations (p. 16, line 31-p. 17, line 4); initiating transfer of the selected item of content at a predicted time of acceptable device activity levels (p. 16, line 31-p. 17, line 4; p. 17, line 20-p. 18, line 3); receiving the selected item of content at the content receptor device; and storing the received item of content on a memory of the content receptor device (p. 1, lines 26-28; 24, FIG. 1, p. 10, lines 7-8; 45, FIG. 2).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. The first grounds for rejection (Issue A) presented for review by the Board is whether claims 1, 9, 15, 16, 18, 19, 24-31 and 33-36 are anticipated under 35 U.S.C. §102(e) by U.S. Patent No. 6,182,133 to *Horvitz*. Under Issue A: claims 1, 8, 10, 15, 16, 19 and 25 stand or fall together; claims 18, 27-30, 32, 33 and 35 stand or fall together; and each of claims 9, 24, 26, 31, 34 and 36 stands or falls alone.

B. The second grounds for rejection (Issue B) presented for review by the Board is whether claims 1, 9, 15, 16, 18, 19, 24-31 and 33-36 are anticipated under 35 U.S.C. §102(e) by U.S. Patent No. 6,920,110 to *Roberts et al.* (referred to herein as "*Roberts*"). Under Issue B: claims 1, 8, 10, 15, 16, 19 and 25 stand or fall together; claims 18, 27-30, 32, 33 and 35 stand or fall

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together; and each of claims 9, 24, 26, 31, 34 and 36 stands or falls alone.

VII. ARGUMENT

The claim rejections at issue are for anticipation under §102(e).

Quoting a Federal Circuit case, MPEP §2131 states:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Quoting another Federal Circuit case, MPEP §2131 further states:

"The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

MPEP §706.02(V) states:

In other words, for anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. Whereas, in a rejection based on 35 U.S.C. 103, the reference teachings must somehow be modified in order to meet the claims. The modification must be one which would have been obvious to one of ordinary skill in the art at the time the invention was made.

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Notice of Appeal Filed May 11, 2009**A. ISSUE A – *HORVITZ*****(A)(i) CLAIMS 1, 8, 10, 15, 16, 19 AND 25**

Of claims 1, 8, 10, 15, 16, 19 and 25, claim 15 is an independent claim. As such, claim 15 is considered representative of these claims and is discussed below. Claims 1, 8, 10, 16, 19 and 25 depend, directly or indirectly, from claim 15.

Claim 15 recites:

A device comprising:

a user interface configured **to allow a user to select an item of content,**

one or more components, and

a content transfer controller configured to determine an acceptable activity period by monitoring usage of the one or more components over a particular time duration, and wherein the content transfer controller is configured to determine that an acceptable activity period is present when the usage of the one or more components is determined to have been below a particular threshold level over the particular time duration, the content transfer controller being arranged:

to initiate transfer of **the selected item of content** from a content provider device according to the determination of an acceptable activity period,

to receive the selected item of content, and

to store the received item of content on memory. (emphasis added)

The device recited in claim 15 includes a user interface allowing a user **to select an item of content.** The device also includes a content transfer controller that is configured to determine an acceptable activity period. The content transfer controller is further arranged to initiate transfer of the item of content (i.e., **the item of content selected by the user via the user interface**)

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according to the determination of an acceptable activity period. As non-limiting examples, such a device enables the effective use of resources and/or minimizes inconvenience for the user (e.g., by delaying transfer of **the selected item of content** so as to otherwise avoid interrupting the user's usage of the device). *See specification at p. 2, lines 2-5 and 28-31.*

The operations recited in claim 15 may be contrasted with the technique of **pre-fetching**. In pre-fetching, a user requests access to a web page, for example, through a uniform resource locator (URL). The requested web page is accessed immediately because it is of immediate interest. Related content, such as web pages linked to by the requested web page, can be pre-fetched. That is, the related content can be accessed (e.g., downloaded) **in advance of a specific request from the user**. Should the user desire to access the related content (e.g., by clicking on a link and requesting the related content), it is immediately available without delay because it already has been downloaded. Pre-fetching can avoid delays incurred by accessing/downloading the related content once it is actually requested by the user.

While the pre-fetched content may be related to requested content, note that the pre-fetched content itself is **not** initially selected or requested by the user. Instead, the pre-fetched content is **automatically** obtained prior to any such selection or request so that, should a request for the pre-fetched content be made, the content is immediately available. Thus, as noted above a delay between the request for the pre-fetched content and presentation of the pre-fetched content is minimized. Clearly, pre-fetching is a different technique from that recited in claim 15 since **pre-fetching accesses the related content without an initial user request or selection for the pre-fetched content**.

The disclosure of *Horvitz*, titled "Method And Apparatus For Display Of Information Prefetching And Cache Status Having Variable Visual Indication Based On A Period Of Time Since Prefetching," is explicitly related to pre-fetching. This is evident from the title, Abstract, and figures of *Horvitz* (see, e.g., FIGS. 6 and 17), as well as from numerous other portions of the specification, including the claims (see, e.g., claim 1).

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For example, at col. 3, lines 42-53 (in the Summary of the Invention section), *Horvitz* states:

My inventive technique satisfies this need for **prefetching** and caching web pages (or, generally speaking, information), as determined by a user model, **that may be selected in the future by the user** or that contain content that may be of interest to the user based upon content and/or, e.g., prior interaction of the user with, e.g., his(her) client computer.

Broadly speaking and in accordance with my invention, a client computer **prefetches** such web pages of interest (of other information) **for subsequent access, potentially while a current web page is being rendered for, e.g., for user review**, on a local display. (emphasis added)

Horvitz explicitly states that the prefetched content is for subsequent access, and, furthermore, may be prefetched **while another web page is being rendered for the user**. It is appropriate to assume that the other web page being rendered for user review is **one that has been requested by the user**. See, e.g., *no. 1085 in FIG. 10B of Horvitz*. At no time does *Horvitz* disclose or suggest that a user actually request the prefetched content prior to retrieval. Indeed, such an operation would be completely at odds with the definition of and goal behind prefetching.

It is further noted that the portion of *Horvitz* cited by the Examiner, col. 4, lines 20-36, is in accordance with the above description of pre-fetching. Therein, *Horvitz* states:

Specifically, once a user, at a client computer, enters an address (e.g., a URL) of a desired web page, a set containing web addresses of pages, that based on the user model **are each likely to be accessed** next, in the same session, or within a given time horizon thereof by that user, are determined, with corresponding files for those files prefetched by the client computer during intervals of low processing activity and/or low network activity, or when an incremental rate of change in utility, of continuing current activity is determined to be lower than an expected value of the utility of fetching potential future content. **Once**

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prefetched, the file for each page is stored in local cache at the client computer for ready access should the user next select that particular page.

As successive web pages are selected by the user and displayed, the immediately prior set of files for prefetched pages can be over-written by files for a current set of prefetched pages. (emphasis added)

In the above-quoted portion, *Horvitz* acknowledges that the prefetched content is ready for access **in case the user selects (e.g., requests) that particular page.** From this disclosure, one may infer that there are times when the user does not request the prefetched content. This inference is fully in line with the anticipatory nature of prefetching.

Since claim 15 is explicitly concerned with **an item of content that is selected by the user**, it is inappropriate to apply disclosure related to prefetching to the subject matter recited in claim 15. Prefetching is exclusively concerned with accessing and downloading **content that has not been requested by the user.** This is clearly at odds with the subject matter of claim 15.

Furthermore, this difference between prefetching and claim 15 is fundamental to the respective topics. That is, the difference between prefetching and the subject matter recited in claim 15 is irreconcilable because the two function in completely opposite manners for completely opposite purposes. As noted above, **prefetching accesses unselected related content prior to a request or selection from the user.** This is done in order to minimize a time delay for downloading/accessing the related content should the related content subsequently be requested by the user. In contrast, claim 15 **initiates transfer of selected content according to a determination of an acceptable activity period.** This is done in order to minimize inconvenience for the user (e.g., avoid interruption) and/or to enable effective use of resources (e.g., transferring the selected content when resources are otherwise not allocated/engaged).

The above-noted differences are intrinsic to the different operations and ***cannot*** be resolved or reconciled. It would be wholly against the concept and alleged advantages of prefetching if the prefetched content were initially selected by a user (e.g., a selected item of content) or if

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downloading of the prefetched content were delayed (e.g., according to a determination of an acceptable activity period in order to minimize inconvenience for the user or to enable more effective use of resources). Similarly, it would be wholly against the subject matter recited in claim 15 and the advantages afforded thereby if the content were not initially selected by a user (e.g., prefetched in advance of a specific request or selection) or if transferal of the selected content were not initiated according to a determination of an acceptable activity period (e.g., if the transferal were automatically performed as in prefetching).

Since *Horvitz* is *only* concerned with *prefetching*, it is respectfully submitted that *Horvitz* cannot possibly be seen to disclose or suggest: "A device comprising: a user interface configured to allow a user to select an item of content, ...and ...[a] content transfer controller being arranged: to initiate transfer of the selected item of content from a content provider device according to the determination of an acceptable activity period," as recited in claim 15. Claim 15 is patentable over *Horvitz*.

(A)(ii) CLAIM 9

Claim 9 indirectly depends from claim 15. As such, the arguments presented above in Section 7A(i) with respect to claim 15 are further applied to dependent claim 9. Thus, for the reasons stated above in Section 7A(i), claim 9 should at least be allowable due to its dependence from allowable independent claim 15.

Claim 9 recites: "A system according to claim 1, wherein the content provider device is arranged to configure the selected item of content into a form suitable for delivery with regard to delivery capabilities of the content receptor device."

The Examiner alleged that *Horvitz* discloses this subject matter at col. 24, lines 17-35 and col. 37, lines 42-47. *See pp. 7-8 of the Final Office Action*. The Examiner further argued that this "is an inherent feature of *Horvitz*'s invention. The content provider device of *Horvitz* is configured to respond and provide selected web page or URL based on the browser capabilities of the

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requesting device." *See p. 4 of the Final Office Action.*

At col. 24, lines 17-35, *Horvitz* discusses various components of the web browser 35, as shown in FIG. 6:

As depicted, browser 35, to the extent relevant, contains page transition modeling component 610, page transition predictor 630, URL retrieval component and data receiver 650 (also referred to here as simply "component 650") and graphical user interface (GUI) generator 670. Component 650 includes URL retrieval access strategies 652 (typically stored definitions) which specify a particular strategy to be used in prefetching web pages. These strategies, in their alternative, include prefetching: (a) predefined pages in their entirety as ordered by their utility; (b) predefined portions of a page, such as text first then graphics, in terms of their utility before prefetching portions of another such page in the same fashion; (c) predefined screenful(s) of a common page in order of their utility to a user; and (d) separate screenfuls ordered by their utility, where for each screenful, predefined portions, e.g., text and graphics, are fetched by their utility, e.g., text before graphics. As an aside, a web page can and often does contain multiple screenfuls of content.

At col. 37, lines 42-47, *Horvitz* mentions a user preference as relating to each web page component:

Specifically, a user could enter his(her) preference for each web page component and modify a relative weighting of a functional component of a web page, e.g., for rendering text before graphics, through a suitable menu "option" in the browser that accommodates user changes to default values.

In neither of the cited portions, nor in any other portion, is *Horvitz* seen to discuss "delivery capabilities of the content receptor device," as recited in claim 9. In fact, a text search of *Horvitz*

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does not reveal any instances of the words "capability," "capabilities" or "delivery." It is submitted that Furthermore, and by extension, Horvitz is not seen to disclose or suggest "configure[ing] [a] selected item of content into a form suitable for delivery with regard to delivery capabilities of [a] content receptor device," as recited in claim 9. Claim 9 is patentable over *Horvitz*.

With respect to inherency, MPEP §2112(IV) states:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted)...

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)...

It is submitted that the Examiner's application of inherency is incorrect and flawed. The Examiner failed to "provide a basis in fact and/or technical reasoning to reasonably support the

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determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." As such, the rejection of claim 9 is further improper since the Examiner failed to meet the *prima facie* burden for rejecting claim 9.

(A)(iii) CLAIM 26

Claim 26 depends from claim 15. As such, the arguments presented above in Section 7A(i) with respect to claim 15 are further applied to dependent claim 26. Thus, for the reasons stated above in Section 7A(i), claim 26 should at least be allowable due to its dependence from allowable independent claim 15.

Claim 26 recites: "A device according to claim 15, wherein the selected item of content has an associated transmission duration which can be analyzed by the content transfer controller, and the content transfer controller is arranged to analyze whether a sufficient duration of an acceptable level of device activity is available for the transfer of the selected item of content."

The Examiner alleged that *Horvitz* discloses this subject matter at col. 36, lines 14-45. *See pp. 8-9 of the Final Office Action.*

At col. 36, lines 14-50, *Horvitz* states:

Moreover, a user can initiate any one of a number of different tasks through his personal computer, other than just downloading web pages, that nevertheless utilize network bandwidth. These tasks include, e.g., undertaking work with directory service, sending and receiving e-mail messages, video-streaming and others, and will present a load to the network. If the user were to initiate any such task, prefetching could be halted during the pendency of that task so that available and appropriate network resources could be dedicated to that particular task. Alternatively, if some degree of prefetching should continue and sufficient network resources then existed, those resources could be allocated, in some

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fashion, between prefetching and another network-based task then being executed such that both that task and web page prefetching could simultaneously occur.

To determine whether sufficient network bandwidth then existed to support the user, the user's personal computer could appropriately probe the network, as discussed above, to assess whether it could allocate sufficient bandwidth to that user, and/or monitor current networking activity at that particular personal computer.

Beyond assessing available network capacity at a client personal computer, overall measures of global network activity, such as across a corporate local area network (LAN), can also be assessed. Such assessments could be readily accomplished by probing the network through a client computer. In this case, the resulting data would indicate a level of networking activity that then existed throughout the entire network. Prefetching would then be initiated at each client computer only when sufficient idle capacity then existed, across the entire network, to support prefetching. Alternatively, if sufficient network capacity did not then exist to support prefetching at all client computers, then prefetching could be initiated at just predefined group of the client computers, with the size of the group being appropriately adapted in real-time to match the network bandwidth then available for prefetching.

Contrary to the Examiner's suggestion, *Horvitz* does not disclose or suggest any operation with respect to "**a sufficient duration of an acceptable level of device activity**," as recited in claim 26. At most, in the above passages *Horvitz* can be seen to disclose assessing available network capacity *at an instance of time*. Furthermore, *Horvitz* also does not disclose or suggest "the content transfer controller is arranged to analyze whether a sufficient duration of an acceptable level of device activity is available **for the transfer of the selected item of content**," as recited in claim 26. Claim 26 is patentable over *Horvitz*.

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Notice of Appeal Filed May 11, 2009(A)(iv) CLAIMS 18, 27-30, 32, 33 AND 35

Of claims 18, 27-30, 32, 33 and 35, claim 27 is an independent claim. As such, claim 27 is considered representative of these claims and is discussed below. Claims 18, 28-30, 32, 33 and 35 depend, directly or indirectly, from claim 27.

Claim 27 recites:

A device comprising:

a user interface configured to allow a user to select an item of content,
 a second device, and
 a content transfer controller configured to determine device activity by analyzing activity of the second device over a time duration and to predict therefrom acceptable device activity levels for subsequent time durations, the content transfer controller being arranged to initiate transfer of the selected item of content from a content provider device at a predicted time of acceptable device activity level, the device being operable to receive the selected item of content and to store the received item of content on memory.
 (emphasis added)

The device recited in claim 27 includes a user interface allowing a user to select an item of content. The device also includes a content transfer controller that is configured to determine device activity by analyzing activity of a second device over a time duration and to predict therefrom acceptable device activity levels for subsequent time durations. The content transfer controller is further arranged to initiate transfer of the item of content (i.e., the item of content selected by the user via the user interface) at a predicted time of acceptable device activity level. As non-limiting examples, such a device enables the effective use of resources and/or minimizes inconvenience for the user (e.g., by delaying transfer of the selected item of content so as to otherwise avoid interrupting the user's usage of the device). *See specification at p. 2, lines 2-5 and 28-31.*

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The operations recited in claim 27 may be contrasted with the technique of **pre-fetching**. In pre-fetching, a user requests access to a web page, for example, through a uniform resource locator (URL). The requested web page is accessed immediately because it is of immediate interest. Related content, such as web pages linked to by the requested web page, can be pre-fetched. That is, the related content can be accessed (e.g., downloaded) **in advance of a specific request from the user**. Should the user desire to access the related content (e.g., by clicking on a link and requesting the related content), it is immediately available without delay because it already has been downloaded. Pre-fetching can avoid delays incurred by accessing/downloading the related content once it is actually requested by the user.

While the pre-fetched content may be related to requested content, note that the pre-fetched content itself is **not** initially selected or requested by the user. Instead, the pre-fetched content is **automatically** obtained prior to any such selection or request so that, should a request for the pre-fetched content be made, the content is immediately available. Thus, as noted above a delay between the request for the pre-fetched content and presentation of the pre-fetched content is minimized. Clearly, pre-fetching is a different technique from that recited in claim 27 since **pre-fetching accesses the related content without an initial user request or selection for the pre-fetched content**.

The disclosure of *Horvitz*, titled "Method And Apparatus For Display Of Information Prefetching And Cache Status Having Variable Visual Indication Based On A Period Of Time Since Prefetching," is explicitly related to pre-fetching. This is evident from the title, Abstract, and figures of *Horvitz* (see, e.g., FIGS. 6 and 17), as well as from numerous other portions of the specification, including the claims (see, e.g., claim 1).

Reference is further made to col. 3, lines 42-53 (in the Summary of the Invention section) of *Horvitz*. *Horvitz* explicitly states that the prefetched content is for subsequent access, and, furthermore, may be prefetched **while another web page is being rendered for the user**. It is appropriate to assume that the other web page being rendered for user review is **one that has**

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been requested by the user. *See, e.g., no. 1085 in FIG. 10B of Horvitz.* At no time does *Horvitz* disclose or suggest that a user actually request the prefetched content prior to retrieval. Indeed, such an operation would be completely at odds with the definition of and goal behind prefetching.

It is further noted that the portion of *Horvitz* cited by the Examiner, col. 4, lines 20-36, is in accordance with the above description of pre-fetching. *Horvitz* acknowledges that the prefetched content is ready for access **in case the user selects (e.g., requests) that particular page.** From this disclosure, one may infer that there are times when the user does not request the prefetched content. This inference is fully in line with the anticipatory nature of prefetching.

Since claim 27 is explicitly concerned with **an item of content that is selected by the user**, it is inappropriate to apply disclosure related to prefetching to the subject matter recited in claim 27. Prefetching is exclusively concerned with accessing and downloading **content that has not been requested by the user.** This is clearly at odds with the subject matter of claim 27.

Furthermore, this difference between prefetching and claim 27 is fundamental to the respective topics. That is, the difference between prefetching and the subject matter recited in claim 27 is irreconcilable because the two function in completely opposite manners for completely opposite purposes. As noted above, **prefetching accesses unselected related content prior to a request or selection from the user.** This is done in order to minimize a time delay for downloading/accessing the related content should the related content subsequently be requested by the user. In contrast, claim 27 **initiates transfer of selected content at a predicted time of acceptable device activity level.** This is done in order to minimize inconvenience for the user (e.g., avoid interruption) and/or to enable effective use of resources (e.g., transferring the selected content when resources are otherwise not allocated/engaged).

The above-noted differences are intrinsic to the different operations and **cannot** be resolved or reconciled. It would be wholly against the concept and alleged advantages of prefetching if the prefetched content were initially selected by a user (e.g., a selected item of content) or if

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downloading of the prefetched content were delayed (e.g., according to a determination of an acceptable activity period in order to minimize inconvenience for the user or to enable more effective use of resources). Similarly, it would be wholly against the subject matter recited in claim 27 and the advantages afforded thereby if the content were not initially selected by a user (e.g., prefetched in advance of a specific request or selection) or if transferal of the selected content were not initiated at a predicted time of acceptable device activity level (e.g., if the transferal were automatically performed as in prefetching).

Since *Horvitz* is *only* concerned with *prefetching*, it is respectfully submitted that *Horvitz* cannot possibly be seen to disclose or suggest: "A device comprising: a user interface configured to allow a user to select an item of content, ...and ...[a] content transfer controller... being arranged to initiate transfer of the selected item of content from a content provider device at a predicted time of acceptable device activity level," as recited in claim 27. Claim 27 is patentable over *Horvitz*.

It is further noted that *Horvitz* also does not disclose or suggest "A device comprising: ...[a] content transfer controller... being arranged to initiate transfer of the selected item of content from a content provider device at a predicted time of acceptable device activity level," as recited in claim 27. The portion of *Horvitz* cited by the Examiner for this element (col. 42, line 41-col. 43, line 8) is with respect to predicting what the user's next action will be (e.g., which of the related content pages the user is likely to select) so as to better rank and download the prefetched content. This has nothing to do with "a predicted time of acceptable device activity level," as recited in claim 27. Clearly *Horvitz* cannot be seen to anticipate this element of claim 27.

(A)(v) CLAIM 34

Claim 34 indirectly depends from claim 27. As such, the arguments presented above in Section 7A(iv) with respect to claim 27 are further applied to dependent claim 34. Thus, for the reasons stated above in Section 7A(iv), claim 34 should at least be allowable due to its dependence from

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allowable independent claim 27.

Claim 34 recites: "A system according to claim 33, wherein the content provider device is arranged to configure the item of content into a form suitable for delivery with regard to delivery capabilities of the content receptor device."

The Examiner alleged that *Horvitz* discloses this subject matter at col. 24, lines 17-35 and col. 37, lines 42-47. *See p. 11 of the Final Office Action.*

At col. 24, lines 17-35, *Horvitz* discusses various components of the web browser 35, as shown in FIG. 6. At col. 37, lines 42-47, *Horvitz* mentions a user preference as relating to each web page component. These portions of *Horvitz* are quoted above in Section 7(A)(ii).

In neither of the cited portions, nor in any other portion, is *Horvitz* seen to discuss "delivery capabilities of the content receptor device," as recited in claim 34. In fact, a text search of *Horvitz* does not reveal any instances of the words "capability," "capabilities" or "delivery." It is submitted that Furthermore, and by extension, *Horvitz* is not seen to disclose or suggest "configure[ing] [an] item of content into a form suitable for delivery with regard to delivery capabilities of [a] content receptor device," as recited in claim 34. Claim 34 is patentable over *Horvitz*.

(A)(vi) CLAIM 31

Claim 31 depends from claim 27. As such, the arguments presented above in Section 7A(iv) with respect to claim 27 are further applied to dependent claim 31. Thus, for the reasons stated above in Section 7A(iv), claim 31 should at least be allowable due to its dependence from allowable independent claim 27.

Claim 31 recites: "A device according to claim 27, wherein the selected item of content has an associated transmission duration which can be analyzed by the content transfer controller, and the

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content transfer controller is arranged to analyze whether a sufficient duration of an acceptable level of device activity is available for the transfer of the selected item of content."

The Examiner alleged that *Horvitz* discloses this subject matter at col. 25, lines 11-30. *See p. 10 of the Final Office Action.*

At col. 25, lines 11-30, *Horvitz* states:

Prefetching would continue until either of two events occurred: the page was completely prefetched or a termination condition arose, whichever occurred first. Such a condition includes any other interruption in prefetching, such as a break in a network connection between browser 35 and server 60 (see FIG. 1), or cessation of an available interval of low activity, such as idle time (as discussed above), at the client computer and/or on the network which was then being used for prefetching. Additionally, once a page has been completely prefetched and additional low processing activity time remained, then component 650 would prefetch the web page for that URL, in the ordered set, having the next highest transition probability and store the content for that page in local cache 656, and so on until either all the pages for the URLs in the set were successively prefetched and their contents stored in cache 656 or a termination condition occurred. Should the user next select a page from any prefetched URL, the content will be read directly from cache 656 and rendered on display 580 (see FIG. 5) associated with the client computer.

Here *Horowitz* is discussing termination conditions for the prefetching. Contrary to the Examiner's suggestion, *Horowitz* does not disclose or suggest "wherein the selected item of content has an associated transmission duration which can be analyzed by the content transfer controller," as recited in claim 31. Furthermore, *Horvitz* also does not disclose or suggest "the content transfer controller is arranged to analyze whether a sufficient duration of an acceptable level of device activity is available **for the transfer of the selected item of content**," as recited

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in claim 31. Claim 31 is patentable over *Horvitz*.

(A)(vii) CLAIM 24

Claim 24 is an independent claim. No claims depend from claim 24.

Claim 24 recites:

A method comprising:

allowing a user to select an item of content via a user interface,
determining an acceptable level of device activity by a content transfer
controller by monitoring usage of one or more components of a content
receptor device over a particular time duration and by determining that an
acceptable activity period has occurred when component usage is determined
to have been below a particular threshold level over the particular time
duration,
in response to determining an acceptable level of device activity,
initiating transfer of **the selected item of content**,
receiving the selected item of content at the content receptor device,
and
storing the received item of content on a memory of the content
receptor device. (emphasis added)

The method recited in claim 24 includes a step of **allowing a user to select an item of content**. The method further includes determining an acceptable level of device activity by monitoring usage of one or more components of a content receptor device over a particular time duration. In response to determining an acceptable level of device activity, transfer of **the selected item of content** is initiated. As non-limiting examples, such a method enables the effective use of resources and/or minimizes inconvenience for the user (e.g., by delaying transfer of **the selected item of content** so as to otherwise avoid interrupting the user's usage of the device). *See*

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The operations recited in claim 24 may be contrasted with the technique of **pre-fetching**. In pre-fetching, a user requests access to a web page, for example, through a uniform resource locator (URL). The requested web page is accessed immediately because it is of immediate interest. Related content, such as web pages linked to by the requested web page, can be pre-fetched. That is, the related content can be accessed (e.g., downloaded) **in advance of a specific request from the user**. Should the user desire to access the related content (e.g., by clicking on a link and requesting the related content), it is immediately available without delay because it already has been downloaded. Pre-fetching can avoid delays incurred by accessing/downloading the related content once it is actually requested by the user.

While the pre-fetched content may be related to requested content, note that the pre-fetched content itself is **not** initially selected or requested by the user. Instead, the pre-fetched content is **automatically** obtained prior to any such selection or request so that, should a request for the pre-fetched content be made, the content is immediately available. Thus, as noted above a delay between the request for the pre-fetched content and presentation of the pre-fetched content is minimized. Clearly, pre-fetching is a different technique from that recited in claim 24 since **pre-fetching accesses the related content without an initial user request or selection for the pre-fetched content**.

The disclosure of *Horvitz*, titled "Method And Apparatus For Display Of Information Prefetching And Cache Status Having Variable Visual Indication Based On A Period Of Time Since Prefetching," is explicitly related to pre-fetching. This is evident from the title, Abstract, and figures of *Horvitz* (see, e.g., FIGS. 6 and 17), as well as from numerous other portions of the specification, including the claims (see, e.g., claim 1).

Reference is further made to col. 3, lines 42-53 (in the Summary of the Invention section) of *Horvitz*. *Horvitz* explicitly states that the prefetched content is for subsequent access, and, furthermore, may be prefetched **while another web page is being rendered for the user**. It is

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appropriate to assume that the other web page being rendered for user review is **one that has been requested by the user**. *See, e.g., no. 1085 in FIG. 10B of Horvitz*. At no time does *Horvitz* disclose or suggest that a user actually request the prefetched content prior to retrieval. Indeed, such an operation would be completely at odds with the definition of and goal behind prefetching.

It is further noted that the portion of *Horvitz* cited by the Examiner, col. 4, lines 20-36, is in accordance with the above description of pre-fetching. *Horvitz* acknowledges that the prefetched content is ready for access **in case the user selects (e.g., requests) that particular page**. From this disclosure, one may infer that there are times when the user does not request the prefetched content. This inference is fully in line with the anticipatory nature of prefetching.

Since claim 24 is explicitly concerned with **an item of content that is selected by the user**, it is inappropriate to apply disclosure related to prefetching to the subject matter recited in claim 24. Prefetching is exclusively concerned with accessing and downloading **content that has not been requested by the user**. This is clearly at odds with the subject matter of claim 24.

Furthermore, this difference between prefetching and claim 24 is fundamental to the respective topics. That is, the difference between prefetching and the subject matter recited in claim 24 is irreconcilable because the two function in completely opposite manners for completely opposite purposes. As noted above, **prefetching accesses unselected related content prior to a request or selection from the user**. This is done in order to minimize a time delay for downloading/accessing the related content should the related content subsequently be requested by the user. In contrast, claim 24 **initiates transfer of selected content in response to determining an acceptable level of device activity**. This is done in order to minimize inconvenience for the user (e.g., avoid interruption) and/or to enable effective use of resources (e.g., transferring the selected content when resources are otherwise not allocated/engaged).

The above-noted differences are intrinsic to the different operations and **cannot** be resolved or reconciled. It would be wholly against the concept and alleged advantages of prefetching if the

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prefetched content were initially selected by a user (e.g., a selected item of content) or if downloading of the prefetched content were delayed (e.g., according to a determination of an acceptable activity period in order to minimize inconvenience for the user or to enable more effective use of resources). Similarly, it would be wholly against the subject matter recited in claim 24 and the advantages afforded thereby if the content were not initially selected by a user (e.g., prefetched in advance of a specific request or selection) or if transferal of the selected content were not initiated in response to determining an acceptable level of device activity (e.g., if the transferal were automatically performed as in prefetching).

Since *Horvitz* is *only* concerned with *prefetching*, it is respectfully submitted that *Horvitz* cannot possibly be seen to disclose or suggest: "A method comprising: **allowing a user to select an item of content** via a user interface, ...[and] in response to determining an acceptable level of device activity, initiating transfer of **the selected item of content**," as recited in claim 24. Claim 24 is patentable over *Horvitz*.

(A)(viii) CLAIM 36

Claim 36 is an independent claim. No claims depend from claim 36.

Claim 36 recites:

A method comprising:

allowing a user to select an item of content via a user interface,
determining an acceptable level of device activity by a content transfer controller by analyzing activity of a content receptor device over a time duration and predicting therefrom acceptable device activity levels for subsequent time durations,

initiating transfer of the selected item of content at a predicted time of acceptable device activity levels,

receiving the selected item of content at the content receptor device, and

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storing the received item of content on a memory of the content receptor device. (emphasis added)

The method recited in claim 36 includes **allowing a user to select an item of content** via a user interface. The method further includes determining an acceptable level of device activity by analyzing activity of a content receptor device over a time duration and predicting therefrom acceptable device activity levels for subsequent time durations. Transfer of the item of content (i.e., **the item of content selected by the user via the user interface**) is initiated at a predicted time of acceptable device activity levels. As non-limiting examples, such a method enables the effective use of resources and/or minimizes inconvenience for the user (e.g., by delaying transfer of **the selected item of content** so as to otherwise avoid interrupting the user's usage of the device). *See specification at p. 2, lines 2-5 and 28-31.*

The operations recited in claim 36 may be contrasted with the technique of **pre-fetching**. In pre-fetching, a user requests access to a web page, for example, through a uniform resource locator (URL). The requested web page is accessed immediately because it is of immediate interest. Related content, such as web pages linked to by the requested web page, can be pre-fetched. That is, the related content can be accessed (e.g., downloaded) **in advance of a specific request from the user**. Should the user desire to access the related content (e.g., by clicking on a link and requesting the related content), it is immediately available without delay because it already has been downloaded. Pre-fetching can avoid delays incurred by accessing/downloading the related content once it is actually requested by the user.

While the pre-fetched content may be related to requested content, note that the pre-fetched content itself is **not** initially selected or requested by the user. Instead, the pre-fetched content is **automatically** obtained prior to any such selection or request so that, should a request for the pre-fetched content be made, the content is immediately available. Thus, as noted above a delay between the request for the pre-fetched content and presentation of the pre-fetched content is minimized. Clearly, pre-fetching is a different technique from that recited in claim 36 since **pre-fetching accesses the related content without an initial user request or selection for the**

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The disclosure of *Horvitz*, titled "Method And Apparatus For Display Of Information Prefetching And Cache Status Having Variable Visual Indication Based On A Period Of Time Since Prefetching," is explicitly related to pre-fetching. This is evident from the title, Abstract, and figures of *Horvitz* (see, e.g., FIGS. 6 and 17), as well as from numerous other portions of the specification, including the claims (see, e.g., claim 1).

Reference is further made to col. 3, lines 42-53 (in the Summary of the Invention section) of *Horvitz*. *Horvitz* explicitly states that the prefetched content is for subsequent access, and, furthermore, may be prefetched **while another web page is being rendered for the user**. It is appropriate to assume that the other web page being rendered for user review is **one that has been requested by the user**. See, e.g., *no. 1085 in FIG. 10B of Horvitz*. At no time does *Horvitz* disclose or suggest that a user actually request the prefetched content prior to retrieval. Indeed, such an operation would be completely at odds with the definition of and goal behind prefetching.

It is further noted that the portion of *Horvitz* cited by the Examiner, col. 4, lines 20-36, is in accordance with the above description of pre-fetching. *Horvitz* acknowledges that the prefetched content is ready for access **in case the user selects (e.g., requests) that particular page**. From this disclosure, one may infer that there are times when the user does not request the prefetched content. This inference is fully in line with the anticipatory nature of prefetching.

Since claim 36 is explicitly concerned with **an item of content that is selected by the user**, it is inappropriate to apply disclosure related to prefetching to the subject matter recited in claim 36. Prefetching is exclusively concerned with accessing and downloading **content that has not been requested by the user**. This is clearly at odds with the subject matter of claim 36.

Furthermore, this difference between prefetching and claim 36 is fundamental to the respective topics. That is, the difference between prefetching and the subject matter recited in claim 36 is

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irreconcilable because the two function in completely opposite manners for completely opposite purposes. As noted above, **prefetching accesses unselected related content prior to a request or selection from the user.** This is done in order to minimize a time delay for downloading/ accessing the related content should the related content subsequently be requested by the user. In contrast, claim 36 **initiates transfer of selected content at a predicted time of acceptable device activity levels.** This is done in order to minimize inconvenience for the user (e.g., avoid interruption) and/or to enable effective use of resources (e.g., transferring the selected content when resources are otherwise not allocated/engaged).

The above-noted differences are intrinsic to the different operations and *cannot* be resolved or reconciled. It would be wholly against the concept and alleged advantages of prefetching if the prefetched content were initially selected by a user (e.g., a selected item of content) or if downloading of the prefetched content were delayed (e.g., according to a determination of an acceptable activity period in order to minimize inconvenience for the user or to enable more effective use of resources). Similarly, it would be wholly against the subject matter recited in claim 36 and the advantages afforded thereby if the content were not initially selected by a user (e.g., prefetched in advance of a specific request or selection) or if transferal of the selected content were not initiated at a predicted time of acceptable device activity levels (e.g., if the transferal were automatically performed as in prefetching).

Since *Horvitz* is *only* concerned with *prefetching*, it is respectfully submitted that *Horvitz* cannot possibly be seen to disclose or suggest: "A method comprising: **allowing a user to select an item of content** via a user interface, [and] **initiating transfer of the selected item of content at a predicted time of acceptable device activity levels,**" as recited in claim 36. Claim 36 is patentable over *Horvitz*.

It is further noted that *Horvitz* also does not disclose or suggest "A method comprising: **initiating transfer of the selected item of content at a predicted time of acceptable device activity levels,**" as recited in claim 36. The portion of *Horvitz* cited by the Examiner for this element (col. 42, line 41-col. 43, line 8) is with respect to predicting what the user's next action will be

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(e.g., which of the related content pages the user is likely to select) so as to better rank and download the prefetched content. This has nothing to do with "**a predicted time of acceptable device activity levels**," as recited in claim 36. Clearly *Horvitz* cannot be seen to anticipate this element of claim 36.

B. ISSUE B – *ROBERTS*

(B)(i) CLAIMS 1, 8, 10, 15, 16, 19 AND 25

Of claims 1, 8, 10, 15, 16, 19 and 25, claim 15 is an independent claim. As such, claim 15 is considered representative of these claims and is discussed below. Claims 1, 8, 10, 16, 19 and 25 depend, directly or indirectly, from claim 15.

Claim 15 recites:

A device comprising:

a user interface configured to allow a user to select an item of content,

one or more components, and

a content transfer controller configured to determine an acceptable activity period by monitoring usage of the one or more components **over a particular time duration**, and wherein the content transfer controller is configured to determine that an acceptable activity period is present when the usage of the one or more components is determined to have been below a particular threshold level **over the particular time duration**, the content transfer controller being arranged:

to initiate transfer of **the selected item of content** from a content provider device **according to the determination of an acceptable activity period**,

to receive the selected item of content, and

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to store the received item of content on memory. (emphasis added)

The device recited in claim 15 includes a user interface allowing a user **to select an item of content**. The device also includes a content transfer controller that is configured to determine that an acceptable activity period is present when **the usage of the one or more components** is determined to have been below a particular threshold level **over a particular time duration**. The content transfer controller is further arranged to initiate transfer of the item of content (i.e., **the item of content selected by the user via the user interface**) according to the determination of an acceptable activity period. As non-limiting examples, such a device enables the effective use of resources and/or minimizes inconvenience for the user (e.g., by delaying transfer of **the selected item of content** so as to otherwise avoid interrupting the user's usage of the device). *See specification at p. 2, lines 2-5 and 28-31.*

Roberts discloses a method for transferring a set of data over a network by monitoring the level of actual bandwidth utilization. The method includes steps of: identifying a maximum monitored level of actual utilization and calculating a size for data blocks to be transferred. The size is calculated as a function of the maximum monitored level of utilization. The data blocks represent a segment of a set of data, such as a software update that may be transferred or downloaded over the network without interfering with other network activity at the network interface. The size of the data blocks are bounded by a maximum and minimum threshold value. *See Abstract.*

From the Background and Detailed Description, it is clear that *Roberts* is concerned with the background downloading of software updates. At col. 8, lines 1-5, *Roberts* states:

Thus, the present invention is directed to the transfer of a set of data, such as a software update, over a network at a time when the network utilization is relatively low. This transfer of data is intended to be transparent to the user, and the user's machine need not be idle during the transfer.

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Note that *Roberts* is concerned with network utilization whereas the content transfer controller of claim 15 is configured "to determine an acceptable activity period by monitoring usage of the one or more components over a particular time duration." In such a manner, it is clear that claim 15 is concerned with utilization of the device's components.

At col. 10, line 54-col. 11, line 3, *Roberts* states:

Each time the level of actual network bandwidth utilization is obtained at step 122, it is also compared to the current threshold level. At step 130, it is determined whether the actual usage is less than the threshold level. If so, a software update (or other set of data) available from the server can be downloaded over the network to the client. To minimize interference with any other present or future network activity of the client, the download is preferably performed by downloading the software update in several segments. Accordingly, at step 132, one segment of the file is downloaded from the server to the client. If the client's network activity increases after downloading the first segment, the download of the entire file can be suspended until the actual usage drops back down below the threshold level. However, if the network is idle for an extended period of time, the download can be accelerated by downloading progressively larger segments of the file over the network.

At col. 8, lines 30-37, *Roberts* states:

When the level of actual usage 90 drops below the threshold level 92, as at T₃, a brief transfer of data should not significantly interfere with other network activity. The transfer of data could be initiated immediately upon first detecting that the actual usage is below the threshold level. However, a more conservative approach, in that it is more deferential to the user, is to detect at least two consecutive occurrences of low usage before initiating a download.

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It is clear that *Roberts* monitors the level of actual network bandwidth utilization and detects when the actual usage falls below a threshold level. This is the trigger *Roberts* uses for determining when to initiate the download. At most, *Roberts* discloses receiving two such triggers, instead of one, for initiating the download.

In contrast, the device recited in claim 15 includes "a content transfer controller configured to determine an acceptable activity period by monitoring usage of the one or more components over a particular time duration." *Roberts* does not disclose or suggest performing monitoring over any particular time duration. *Roberts* also does not disclose or suggest monitoring the usage of components, as recited in claim 15. Clearly, *Roberts* does not disclose or suggest each and every element as set forth in claim 15. See MPEP §§2131 and 706.02(V) as quoted above.

At col. 1, line 51-col. 2, line 13, in the Background of the Invention section, *Roberts* discusses some of the issues with prior art techniques for downloading software updates. More specifically, *Roberts* states:

Microsoft Corporation provides a software update service in connection with its MICROSOFT WINDOWS family of operating system products under the mark "WINDOWS UPDATE". By accessing the "WINDOWS UPDATE" Internet website, MICROSOFT WINDOWS users can have their system evaluated and download both critical and non-critical software updates (e.g., a fix or a patch) over the Internet. **Upon determining there are updates available which are not already loaded on the user's PC, the user is notified that such updates are available, and the user is prompted to select one or more of them for downloading over the Internet. While this is a convenient method for providing software updates to users, such downloads could interfere with other network activity. Moreover, it is likely that many users will not take the initiative to navigate to the "WINDOWS UPDATE" website and download operating system updates for their PCs.** Consequently, users who have not yet downloaded critical updates are more likely to encounter problems

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with their PCs, and they will likely call the vendor's product support line when a problem arises. (emphasis added)

This is the only portion of *Roberts* that makes reference to the user selecting anything. Note that the above-emphasized portion of *Roberts* identifies issues with the prior art. That is, *Roberts* is critical of the conventional update system wherein "the user is notified that such updates are available, and the user is prompted to select one or more of them for downloading."

Roberts does not disclose or suggest that the user select the data to be downloaded. In fact, *Roberts* seems to suggest otherwise since, in the Background of the Invention section, *Roberts* identifies problems associated with the prior art update systems, including those wherein a user selects the updates to be downloaded. In this respect, the disclosure of *Roberts* is similar and/or related to the concept of prefetching, noted above with respect to *Horvitz*.

Thus, *Roberts* does not disclose or suggest "A device comprising: **a user interface configured to allow a user to select an item of content**, ...and ...[a] content transfer controller being arranged: to initiate transfer of **the selected item of content** from a content provider device according to the determination of an acceptable activity period," as recited in claim 15. Claim 15 is patentable over *Roberts*.

(B)(ii) CLAIM 9

Claim 9 depends from claim 15. As such, the arguments presented above in Section 7A(i) with respect to claim 15 are further applied to dependent claim 9. Thus, for the reasons stated above in Section 7A(i), claim 9 should at least be allowable due to its dependence from allowable independent claim 15.

Claim 9 recites: "A system according to claim 1, wherein the content provider device is arranged to configure the selected item of content into a form suitable for delivery with regard to delivery capabilities of the content receptor device."

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The Examiner failed to identify a particular portion of *Roberts* that allegedly discloses the subject matter recited in claim 9. The Examiner also failed to provide an explanation regarding the rejection of claim 9 as being anticipated by *Roberts*. See p. 12 of the Final Office Action.

37 C.F.R. §1.104(c)(2) states:

In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

The pertinence of *Roberts* to the subject matter recited in claim 9 is unclear. The Examiner failed to provide any explanation with regards to the rejection of claim 9. The Examiner also failed to designate, as nearly as practicable, the particular part of *Roberts* that is relied on. The Examiner's rejection of claim 9 is traversed as the Examiner failed to meet the *prima facie* burden for rejecting claim 9.

After a careful review of *Roberts*, no disclosure or suggestion is found relating to arranging the data in "a form suitable for delivery with regard to delivery capabilities of the content receptor device," as recited in claim 9. *Roberts* is not seen to discuss the delivery capabilities of the receiving device in any respect, let alone arranging data in a form related thereto. Claim 9 is patentable over *Roberts*.

(B)(iii) CLAIMS 18, 27-30, 32, 33 AND 35

Of claims 18, 27-30, 32, 33 and 35, claim 27 is an independent claim. As such, claim 27 is considered representative of these claims and is discussed below. Claims 18, 28-30, 32, 33 and

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35 depend, directly or indirectly, from claim 27.

Claim 27 recites:

A device comprising:

a user interface configured to allow a user **to select an item of content,**
a second device, and
a content transfer controller configured to determine device activity by **analyzing activity of the second device over a time duration** and **to predict therefrom acceptable device activity levels for subsequent time durations,**
the content transfer controller being arranged to initiate transfer of the selected item of content from a content provider device **at a predicted time of acceptable device activity level,** the device being operable to receive the selected item of content and to store the received item of content on memory.
(emphasis added)

The device recited in claim 27 includes a user interface allowing a user **to select an item of content.** The device also includes a content transfer controller that is configured to determine device activity by analyzing activity of a second device **over a time duration** and **to predict therefrom acceptable device activity levels for subsequent time durations.** The content transfer controller is further arranged to initiate transfer of the item of content (i.e., **the item of content selected by the user via the user interface**) **at a predicted time of acceptable device activity level.** As non-limiting examples, such a device enables the effective use of resources and/or minimizes inconvenience for the user (e.g., by delaying transfer of **the selected item of content** so as to otherwise avoid interrupting the user's usage of the device). *See specification at p. 2, lines 2-5 and 28-31.*

Roberts discloses a method for transferring a set of data over a network by monitoring the level of actual bandwidth utilization. The method includes steps of: identifying a maximum monitored

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level of actual utilization and calculating a size for data blocks to be transferred. The size is calculated as a function of the maximum monitored level of utilization. The data blocks represent a segment of a set of data, such as a software update that may be transferred or downloaded over the network without interfering with other network activity at the network interface. The size of the data blocks are bounded by a maximum and minimum threshold value. *See Abstract.*

From the Background and Detailed Description, it is clear that *Roberts* is concerned with the background downloading of software updates. *See Roberts at col. 8, lines 1-5.*

Note that *Roberts* is concerned with network utilization whereas the content transfer controller of claim 27 is configured "to determine device activity by analyzing activity of the second device over a time duration and to predict therefrom acceptable device activity levels for subsequent time durations." In such a manner, it is clear that claim 27 is concerned with utilization of the second device.

It is clear that *Roberts* monitors the level of actual network bandwidth utilization and detects when the actual usage falls below a threshold level. *See Roberts at col. 10, line 54-col. 11, line 3.* This is the trigger *Roberts* uses for determining when to initiate the download. At most, *Roberts* discloses receiving two such triggers, instead of one, for initiating the download. *See Roberts at col. 8, lines 30-37.*

In contrast, the device recited in claim 27 includes "a content transfer controller configured to determine device activity by analyzing activity of the second device over a time duration and to predict therefrom acceptable device activity levels for subsequent time durations." *Roberts* does not disclose or suggest determining device activity over any particular time duration. *Roberts* also does not disclose or suggest determining activity of a second device, as recited in claim 27. Furthermore, *Roberts* is not seen to disclose or suggest predicting, from device activity obtained by analyzing activity of a second device over a time duration, acceptable device activity levels for subsequent time durations. *Roberts* does not appear to disclose or suggest any such

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prediction operation for later or subsequent downloading. Clearly, *Roberts* does not disclose or suggest each and every element as set forth in claim 27. See MPEP §§2131 and 706.02(V) as quoted above.

At col. 1, line 51-col. 2, line 13, in the Background of the Invention section, *Roberts* discusses some of the issues with prior art techniques for downloading software updates. This is the only portion of *Roberts* that makes reference to the user selecting anything. *Roberts* is critical of the conventional update system wherein "the user is notified that such updates are available, and the user is prompted to select one or more of them for downloading."

Roberts does not disclose or suggest that the user select the data to be downloaded. In fact, *Roberts* seems to suggest otherwise since, in the Background of the Invention section, *Roberts* identifies problems associated with the prior art update systems, including those wherein a user selects the updates to be downloaded. In this respect, the disclosure of *Roberts* is similar and/or related to the concept of prefetching, noted above with respect to *Horvitz*.

Thus, *Roberts* does not disclose or suggest "A device comprising: a user interface configured to allow a user to select an item of content, ...and ...[a] content transfer controller being arranged to initiate transfer of the selected item of content from a content provider device at a predicted time of acceptable device activity level," as recited in claim 27. Claim 27 is patentable over *Roberts*.

(B)(iv) CLAIM 34

Claim 34 depends from claim 27. As such, the arguments presented above in Section 7B(iii) with respect to claim 27 are further applied to dependent claim 34. Thus, for the reasons stated above in Section 7B(iii), claim 34 should at least be allowable due to its dependence from allowable independent claim 27.

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Claim 34 recites: "A system according to claim 33, wherein the content provider device is arranged to configure the item of content into a form suitable for delivery with regard to delivery capabilities of the content receptor device."

The Examiner failed to identify a particular portion of *Roberts* that allegedly discloses the subject matter recited in claim 34. The Examiner also failed to provide an explanation regarding the rejection of claim 34 as being anticipated by *Roberts*. See p. 12 of the Final Office Action.

37 C.F.R. §1.104(c)(2) states:

In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

The pertinence of *Roberts* to the subject matter recited in claim 34 is unclear. The Examiner failed to provide any explanation with regards to the rejection of claim 34. The Examiner also failed to designate, as nearly as practicable, the particular part of *Roberts* that is relied on. The Examiner's rejection of claim 34 is traversed as the Examiner failed to meet the *prima facie* burden for rejecting claim 34.

After a careful review of *Roberts*, no disclosure or suggestion is found relating to arranging the data in "a form suitable for delivery with regard to delivery capabilities of the content receptor device," as recited in claim 34. *Roberts* is not seen to discuss the delivery capabilities of the receiving device in any respect, let alone arranging data in a form related thereto. Claim 34 is patentable over *Roberts*.

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(B)(v) CLAIM 24

Claim 24 is an independent claim. No claims depend from claim 24.

Claim 24 recites:

A method comprising:

allowing a user to select an item of content via a user interface,
determining an acceptable level of device activity by a content transfer
controller by monitoring usage of one or more components of a content
receptor device over a particular time duration and by determining that an
acceptable activity period has occurred when component usage is determined
to have been below a particular threshold level over the particular time
duration,
in response to determining an acceptable level of device activity,
initiating transfer of the selected item of content,
receiving the selected item of content at the content receptor device,
and
storing the received item of content on a memory of the content
receptor device. (emphasis added)

The method recited in claim 24 includes allowing a user to select an item of content (via a user interface). The method also includes determining an acceptable level of device activity by monitoring usage of one or more components of a content receptor device over a particular time duration. An acceptable activity period is determined to have occurred when component usage is determined to have been below a particular threshold level over the particular time duration. In response to determining an acceptable level of device activity, transfer of the selected item of content is initiated. The selected item of content is received and stored. As non-limiting examples, such a device enables the effective use of resources and/or minimizes inconvenience for the user (e.g., by delaying transfer of the selected item of content so as to otherwise avoid interrupting the user's usage of the device). *See specification at p. 2, lines 2-5*

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Roberts discloses a method for transferring a set of data over a network by monitoring the level of actual bandwidth utilization. The method includes steps of: identifying a maximum monitored level of actual utilization and calculating a size for data blocks to be transferred. The size is calculated as a function of the maximum monitored level of utilization. The data blocks represent a segment of a set of data, such as a software update that may be transferred or downloaded over the network without interfering with other network activity at the network interface. The size of the data blocks are bounded by a maximum and minimum threshold value. *See Abstract.*

From the Background and Detailed Description, it is clear that *Roberts* is concerned with the background downloading of software updates. *See Roberts at col. 8, lines 1-5.*

Note that *Roberts* is concerned with network utilization whereas the method of claim 24 recites "determining an acceptable level of device activity by a content transfer controller by **monitoring usage of one or more components** of a content receptor device over a particular time duration."

In such a manner, it is clear that claim 24 is concerned with utilization of the one or more components.

It is clear that *Roberts* monitors the level of actual network bandwidth utilization and detects when the actual usage falls below a threshold level. *See Roberts at col. 10, line 54-col. 11, line 3.*

This is the trigger *Roberts* uses for determining when to initiate the download. At most, *Roberts* discloses receiving two such triggers, instead of one, for initiating the download. *See Roberts at col. 8, lines 30-37.*

In contrast, the method recited in claim 24 includes "determining an acceptable level of device activity by a content transfer controller by monitoring **usage of one or more components** of a content receptor device **over a particular time duration**." *Roberts* does not disclose or suggest performing monitoring over any particular time duration. *Roberts* also does not disclose or

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suggest monitoring the usage of components, as recited in claim 24. Clearly, *Roberts* does not disclose or suggest each and every element as set forth in claim 24. *See MPEP §§2131 and 706.02(V) as quoted above.*

At col. 1, line 51-col. 2, line 13, in the Background of the Invention section, *Roberts* discusses some of the issues with prior art techniques for downloading software updates. This is the only portion of *Roberts* that makes reference to the user selecting anything. *Roberts* is critical of the conventional update system wherein "the user is notified that such updates are available, and the user is prompted to select one or more of them for downloading."

Roberts does not disclose or suggest that the user select the data to be downloaded. In fact, *Roberts* seems to suggest otherwise since, in the Background of the Invention section, *Roberts* identifies problems associated with the prior art update systems, including those wherein a user selects the updates to be downloaded. In this respect, the disclosure of *Roberts* is similar and/or related to the concept of prefetching, noted above with respect to *Horvitz*.

Thus, *Roberts* does not disclose or suggest "A device comprising: **allowing a user to select an item of content** via a user interface, ...[and] in response to determining an acceptable level of device activity, initiating transfer of **the selected item of content**," as recited in claim 24. Claim 24 is patentable over *Roberts*.

(B)(vi) CLAIM 36

Claim 36 is an independent claim. No claims depend from claim 36.

Claim 36 recites:

A method comprising:

allowing a user to select an item of content via a user interface,
determining an acceptable level of device activity by a content transfer

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controller by analyzing activity of a content receptor device over a time duration and predicting therefrom acceptable device activity levels for subsequent time durations,

initiating transfer of the selected item of content at a predicted time of acceptable device activity levels,

receiving the selected item of content at the content receptor device, and
storing the received item of content on a memory of the content receptor device. (emphasis added)

The method recited in claim 36 includes allowing a user to select an item of content via a user interface. The method also includes determining an acceptable level of device activity by a content transfer controller by analyzing activity of a content receptor device over a time duration. Acceptable device activity levels for subsequent time durations are predicted therefrom. Transfer of the selected item of content is initiated at a predicted time of acceptable device activity levels. The selected item of content is received and stored. As non-limiting examples, such a method enables the effective use of resources and/or minimizes inconvenience for the user (e.g., by delaying transfer of the selected item of content so as to otherwise avoid interrupting the user's usage of the device). *See specification at p. 2, lines 2-5 and 28-31.*

Roberts discloses a method for transferring a set of data over a network by monitoring the level of actual bandwidth utilization. The method includes steps of: identifying a maximum monitored level of actual utilization and calculating a size for data blocks to be transferred. The size is calculated as a function of the maximum monitored level of utilization. The data blocks represent a segment of a set of data, such as a software update that may be transferred or downloaded over the network without interfering with other network activity at the network interface. The size of the data blocks are bounded by a maximum and minimum threshold value. *See Abstract.*

From the Background and Detailed Description, it is clear that *Roberts* is concerned with the

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background downloading of software updates. *See Roberts at col. 8, lines 1-5.*

Note that *Roberts* is concerned with network utilization whereas the method of claim 36 includes "determining an acceptable level of device activity by a content transfer controller by analyzing activity of a content receptor device over a time duration and predicting therefrom acceptable device activity levels for subsequent time durations." In such a manner, it is clear that claim 36 is concerned with activity of the content receptor device.

It is clear that *Roberts* monitors the level of actual network bandwidth utilization and detects when the actual usage falls below a threshold level. *See Roberts at col. 10, line 54-col. 11, line 3.* This is the trigger *Roberts* uses for determining when to initiate the download. At most, *Roberts* discloses receiving two such triggers, instead of one, for initiating the download. *See Roberts at col. 8, lines 30-37.*

In contrast, the method recited in claim 36 includes "determining an acceptable level of device activity by a content transfer controller by analyzing activity of a content receptor device over a time duration and predicting therefrom acceptable device activity levels for subsequent time durations." *Roberts* does not disclose or suggest analyzing device activity over any particular time duration. *Roberts* also does not disclose or suggest analyzing activity of a content receptor device, as recited in claim 36. Furthermore, *Roberts* is not seen to disclose or suggest predicting, from analyzing activity of a content receptor device over a time duration, acceptable device activity levels for subsequent time durations. *Roberts* does not appear to disclose or suggest any such prediction operation for later or subsequent downloading. Clearly, *Roberts* does not disclose or suggest each and every element as set forth in claim 27. *See MPEP §§2131 and 706.02(V) as quoted above.*

At col. 1, line 51-col. 2, line 13, in the Background of the Invention section, *Roberts* discusses some of the issues with prior art techniques for downloading software updates. This is the only portion of *Roberts* that makes reference to the user selecting anything. *Roberts* is critical of the conventional update system wherein "the user is notified that such updates are available, and the

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user is prompted to select one or more of them for downloading."

Roberts does not disclose or suggest that the user select the data to be downloaded. In fact, *Roberts* seems to suggest otherwise since, in the Background of the Invention section, *Roberts* identifies problems associated with the prior art update systems, including those wherein a user selects the updates to be downloaded. In this respect, the disclosure of *Roberts* is similar and/or related to the concept of prefetching, noted above with respect to *Horvitz*.

Thus, *Roberts* does not disclose or suggest "A method comprising: **allowing a user to select an item of content** via a user interface, ...[and] initiating transfer of **the selected item** of content at a predicted time of acceptable device activity levels," as recited in claim 36. Claim 36 is patentable over *Roberts*.

VIII. CLAIMS APPENDIX

Attached.

IX. EVIDENCE APPENDIX

The attached exhibits include: a copy of the originally filed application that is the subject of this appeal (Exhibit A), the two references relied on by the Examiner in rejecting the claims of the instant application (Exhibits B and C), and the Final Office Action dated March 6, 2009 (Exhibit D).

Exhibit A: Originally filed application for S.N. 10/770,868.

Exhibit B: U.S. Patent No. 6,182,133 to *Horvitz*.

Exhibit C: U.S. Patent No. 6,920,110 to *Roberts et al.*

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Exhibit D: Final Office Action mailed on March 6, 2009 for the instant application.

X. RELATED PROCEEDINGS APPENDIX

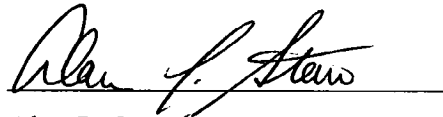
None.

CONCLUSION

For at least the above reasons, the Applicant/Appellant contends that neither *Horvitz* nor *Roberts* can be seen to anticipate any of the currently pending claims. The Applicant/Appellant respectfully requests that the Board reverse the final rejection of the claims in the Final Office Action of March 6, 2009, and further that the Board rule that the pending claims are patentable over the cited art.

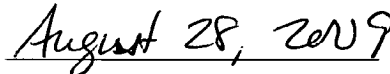
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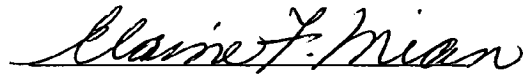
E-mail: astern@hspatent.com

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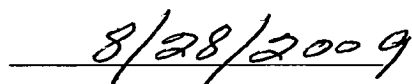
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